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**Your Safety • Your Mobility
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Frequently Asked Questions SALT, BRINE & DE-ICERS



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**Why does ITD
use salt?**

Frequently Asked Questions Salt, Brine & De-icers

How does the Idaho Transportation Department keep winter roads clear?

ITD monitors the weather to determine when to use which applications on our roads to keep them safe. ITD uses anti-icing applications such as liquid salt brine and magnesium chloride before the storm hits to prevent ice from forming. During the



storm, ITD plows the roads and applies anti-icing solutions such as solid salt to burn through snow on the road.

ITD is a global leader in using current data to drive decision making for winter operations. More than a dozen other countries have contacted ITD.

Why use salt in road maintenance?

Salt is extremely effective in keeping winter roads clear and as safe as possible.

However, to minimize effects to vehicles and the environment, **ITD uses the least amount of salt necessary to keep the roads safe.**

ITD has used salt in winter-maintenance efforts since the 1960s, and liquid de-icers since 2000. ITD uses in excess of 100 million lbs. of salt and salt brine each winter to clear 12,200 lane miles of highway - more if necessary during severe winters.



Using salt increases the effectiveness of anti-icers by adding a snow- and ice-melting agent to improve traction. It also keeps stockpiles of sand from freezing solid.

Because of the use of salt, there has been significant decreases in winter road incidents in winter months. In fact, the months of December-February show a recent decline in fatalities and serious injury crashes, and those months are when salt use on our highways is heaviest.

Vehicle Corrosion

A result of using salts to maximize safety on the highways is vehicle corrosion, particularly the undercarriage. Various solutions have been suggested.

ITD uses sodium chloride salt, which is corrosive to iron and steel but has less impact on aluminum and copper. Auto manufacturers regularly apply protective coatings, so corrosion is reduced on modern vehicles. Agencies also have experimented with adding buffering agents to salt.

For liquid applications, the amount placed on the roadway varies with the purpose of the application. For anti-icing applications, liquids are applied just before the storm. For solid applications, ITD applies salt behind the snowplow to help melt the remaining snow and ice.

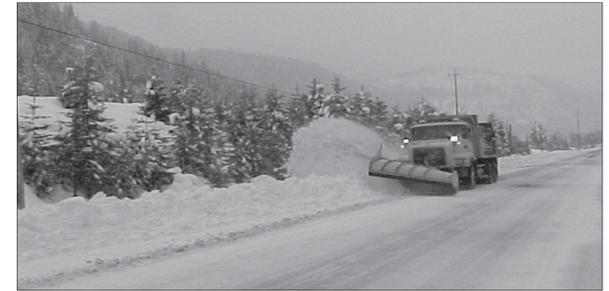
The best method to minimize corrosion available today is the careful use of salt. Application rates used by ITD are far below those commonly used in Mid-Western States.

Washing vehicles frequently also helps minimize corrosion.

ITD has also seen the effects of the increased salt usage on our snowplow trucks and equipment. We have found that frequent washing of the equipment is the best way to reduce potential corrosion.

Environmental Considerations

Temporary "browning" on trees lining the highway is seasonal, the result of winter roadway maintenance.



Salts pull moisture from the needles, causing them to dehydrate and brown. The needles fall off once the new annual growth emerges. By mid-summer, the trees are typically green again.

Trees add to the roadside scenery of Idaho, but can pose a threat to drivers. Trees shade some parts of the road, allowing ice to form in the winter. In a storm, trees can fall onto the roadway. It can also limit line of sight for drivers and obscure wildlife near or on the roadway.

Salt for Safety

ITD uses salt on the road to keep it as safe and clear as possible, and only uses as much salt as necessary to do the job. The department measures how much salt our trucks use every year to make sure the least amount of salt is used to minimize effects to the environment and to vehicles.

Please remember to clean your vehicle during the winter months, and call 5-1-1 or visit 511.idaho.gov for the latest road conditions.



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